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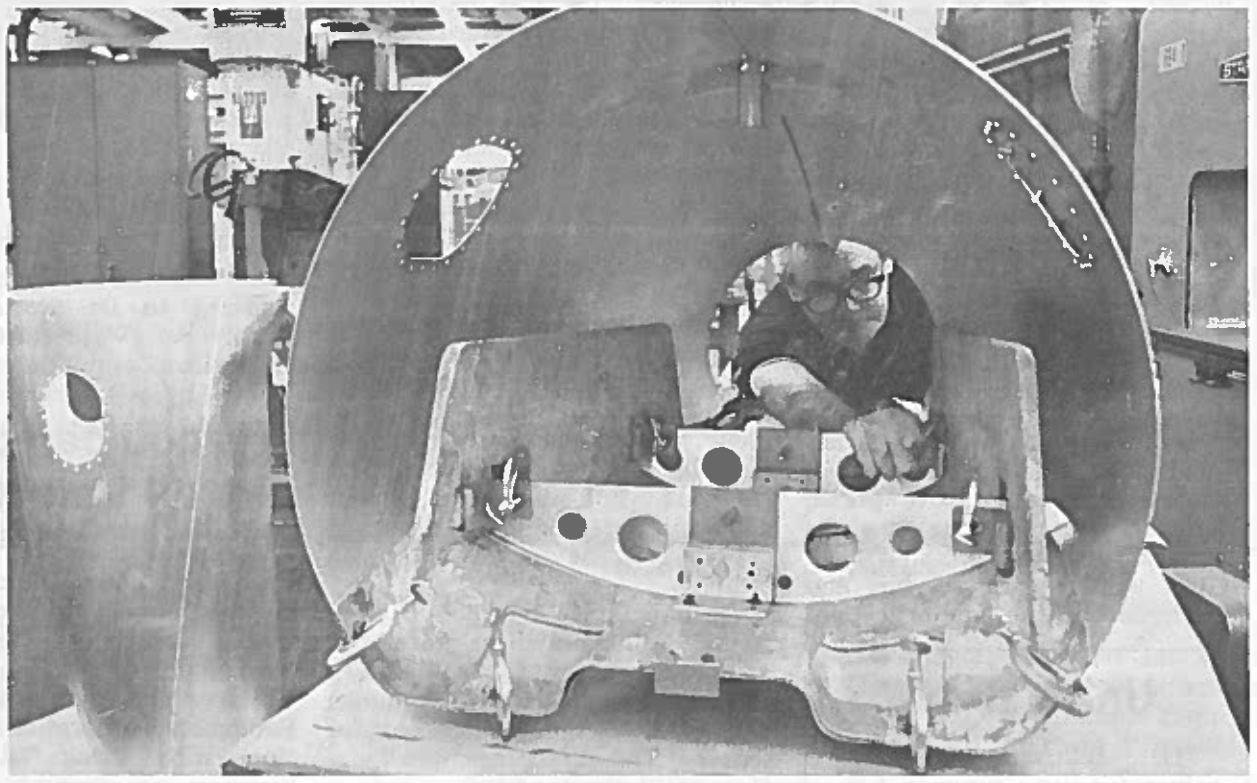

F-14 drop tank team aims to reap benefits from 'group technology'

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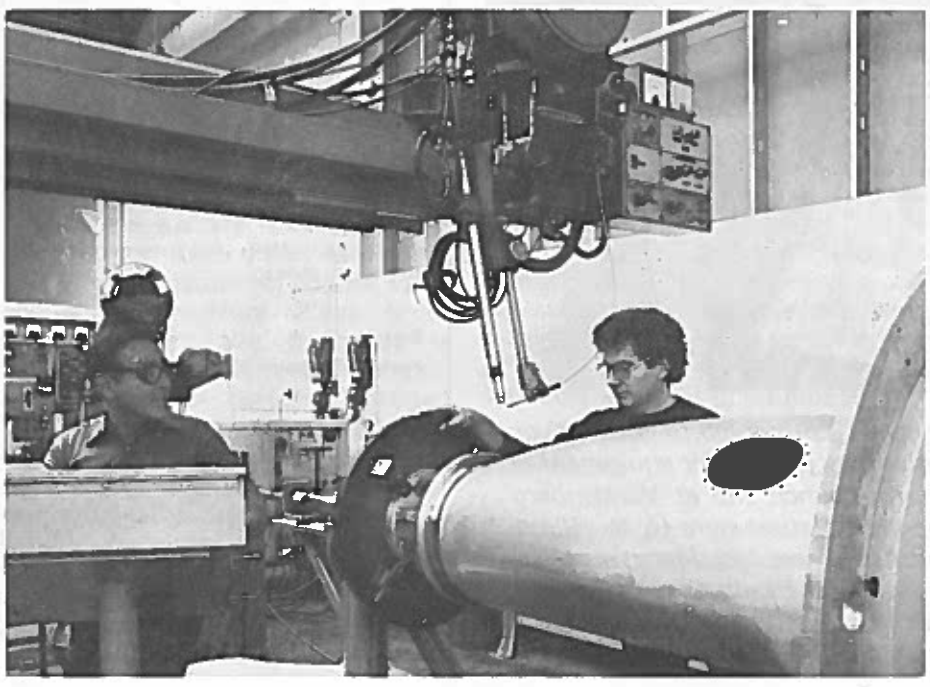

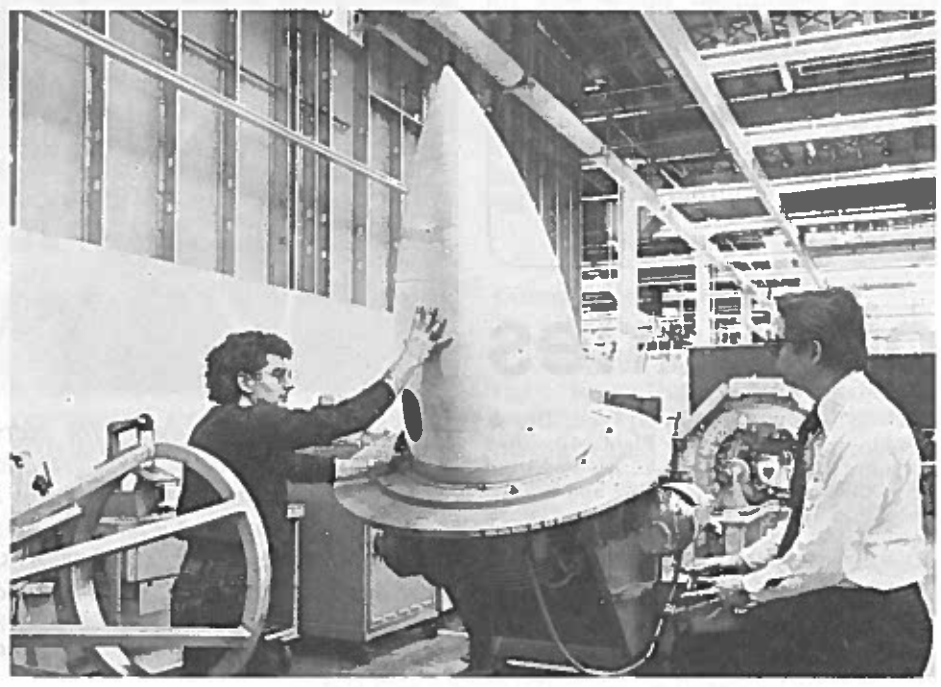

Aerospace news briefs

Help plan future of fusion energy

Grumman Aerospace has been awarded a three-year Technical Support Services contract to assist the Department of Energy in planning the future of fusion energy. Grumman will be assisted in this effort by three subcontractors: Boeing Engineering and Construction Company, Duke Power of Charlotte, N.C. and Public Service Electric and Gas of New Jersey.

The following Grummanites were appointed to the Technical Support Services team: Don Moyer, manager; Erick Stern, systems engineering; Carl Von Keszycki, research and development; and John Erickson, systems engineering.

Within Grumman, the Technical Support Services team will report to Dan Huebner, senior vice president — Marketing & Advanced Technology Development. Its activities will be guided by an advisory board of senior management officials from each company involved, chaired by Dr. Renso Caporali, Grumman senior vice president — Technical Operations. William Rathke will serve as secretary and coordinator of the advisory board and also as program advisor.

The Technical Support Services team will operate out of a newly-established Grumman office in the Washington, D.C. area

Advanced warning satellite bid update

Grumman Aerospace has named Myron Bennett program director for the Defense Support Program — Follow-On (DSP/FO). Last month, Grumman joined with the Lockheed Missiles and Space Company in a bid to win this Phase I conceptual design study contract for the Air Force's next generation of advanced warning satellites.

Bennett is responsible for the proposal preparation and all other efforts associated with this program. Dr. Patrick Barry is assistant program director in charge of the technical aspects of the program.

The first phase will be a 15-month study leading to full-scale development of the advanced warning satellite and its ground support elements. Full-scale development and initial production buy is expected to be in excess of $2-billion.

Grummanites in Plant 71 in Irvine, California, have developed a unique sensor for space-based infrared surveillance and Grumman will be the prime contractor for sensors. The sensor team includes Honeywell, Inc., and Itek.

Three teams will be selected by the Air Force/Space Division, El Segundo, California in the spring of 1984. The Lockheed/Grumman team's competition is from Hughes, Rockwell, TRW, McDonnell Douglas, General Electric and others.

New assignments

The following Grummanites received new assignments recently.

In addition to his regular duties, Joe Kingfield has been appointed corporate safety officer. Kingfield is vice president-Corporate Quality and Safety Operations.

Steve Weinberg has been named director of Business Operations for Subcontracts and Commercial Products. He reports to Tom McGrath, vice president-Subcontracts and Commercial Products, for operational direction and to Jake Bussolini, director of Business Operations, for departmental guidance and administration. In addition, Weinberg continues as manager of Contracts-Commercial Programs.

Dick Petrusa has been appointed assistant to Dr. Renso Caporali, senior vice president-Technical Operations.

LI blood campaign hits all time high

Congratulations were in order at the Long Island Blood Services' Outstanding Donor Group Recognition Luncheon held Friday, November 4 at the Milleridge Cottage. The event was hosted by Grumman Corporation in conjunction with Long Island Blood Services.

Grumman Corporation Chairman Jack Bierwirth, chairman of the LIBS donor campaign from 1980 through 1983, told attendees that over 135,987 blood donations were given during 1982. A total of 363,833 pints of blood has been donated since the beginning of his involvement in the LIBS campaign in 1980.

"From the individual blood donor to the large corporation, a great deal of talent and hard work have been given to meet Long Island's blood needs," commented Bierwirth. "We should all be proud of Long Island's contribution and its achievements."

Dr. Johanna Pindyck, director of the Greater New York Blood Program, also spoke at the luncheon, thanking the representatives of the over 150 business, educational, community and religious groups invited, and praising Bierwirth for his "devotion and leadership without which we could not have gotten as far as we have today."

NAVPRO hosts health seminars

On November 7, Naval Plant Representative Office (NAVPRO) employees had the opportunity to learn more about health care.

Sponsored by the Blue Cross/Blue Shield of Greater New York, the health education program included a nutrition workshop, and a stress management and biofeedback session. The latter's material was also utilized on the recent NBC television series on stress by Dr. Frank Field.

"The classes were well attended and well received," says Dennis Foley, a personnel staffing specialist with the Navy in Plant 35. "Due to the success of this program, future courses are being planned."

To find out more about these programs, call Foley on Ext. 3253.

Unit values

The following are unit values for the Grumman Employee Investment Plan as of September 30, 1983. These unit values are compared to the preceding month's values (August 1983).

Equity Fund
2.508 up from 2.463

Fixed Income Fund
3.48 up from 3.337

Guaranteed Income Fund
1.688 up from 1.672

Company Stock Fund
$28.563 up from $26.563

obituaries

ERNEST W. OAKLEY of Tech. Ops & Mgmt — Other Plts., Plant 40, died October 30 at the age of 51. He had been with the company since 1972 and resided at 4 Fox Hollow Riding Rd., Northport.

ERNEST R. SIMPSON of Procurement Services, Plant 30, died November 5 at the age of 53. He had been with the company since 1963 and resided at 67 Powell Street, Roosevelt.

Shuttle award. *An award for excellence was presented to Great River Operations by Martin Marietta Corporation (MMC) for equipment it supplied for installation on the Shuttle launch site at Vandenberg Air Force Base in California. At the presentation were (L to R) Lt. Col. Michael Shepar, chief of Mission Assurance; Jack Macy, manager of Material Operations, MMC; Vice President Bruno Caputo, general manager of Great River; Linda Smith, administrative assistant, MMC; and Joe Buzzell, chief of Quality Planning, MMC.*

GRUMMAN plane news

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F-14 drop tank center

'Group technology' proving successful

The use of "group technology" — the concept of centering all tooling, materials and personnel for a particular project under one roof — is proving successful in the production of external fuel drop tanks for F-14 Tomcats.

Dean Shull, deputy Manufacturing manager for the program, says "We'll know for sure just how effective the system has been in a few more months of course, but we are expecting to see significant overall productivity improvement stemming from the fact that we have consolidated the entire operation in one plant."

Group technology is not necessarily a new concept for Grumman, but its application in the manufacturing of the F-14 fuel drop tanks is a first for the program. The idea was adopted when production of the drop tanks was reactivated by a Navy request to resume deliveries.

Sam Fletcher, armament manager for the F-14 program, says that a pair of drop tanks, each with 267 gallons of additional fuel, have become "indispensable for F-14 carrier based operations by increasing mission radius as much as forty percent and on-station time by as much as fifty percent."

Production of the drop tanks is taking place in Plant 3, where upwards of 95 percent of the total job is being done. Dubbed the "manufacturing center," the working area includes welding operations, magneform processes and assembly.

Welding machines moved

The major change in the operation from earlier Grumman drop tank production projects has been the movement of welding processes, specifically four "Sciaky" spot welding machines, from Plant 2 into the Plant 3 manufacturing center. "Previously, considerable time and energy was wasted in the movement of parts and people from one plant to the other," says Shull.

One magneform unit has also been moved into Plant 3 already and two others are scheduled to be brought over from Plant 2 in January when the operation is expected to move into full production status. The personnel needed to run the magneform processes will transfer from Plant 2 and will be the only workers on the project not originally from the Plant 3 production team.

McCormick says production of the drop tanks is running "almost like an assembly line." Such an operation, he says, "is more logically efficient because the workers can help each other out solving and even avoiding some typical problems that commonly caused downtime in production lines.

Teamwork. *Spot welders Anthony Amodeo and Vernon Turple working together on one of four spot welding machines that were brought over from Plant 2 to the Plant 3 manufacturing center. Photos on front cover feature: (clockwise from top left) project foreman Don Scheulen with Harold Ellison, welding engineer, inspecting drop tank inner frame; Turple assembling frame and shell; welding keyman Bill McCormick and welding engineer Danny Bauer adjusting tank for welding; and McCormick with Ellison on shell former.*

"For instance, I can just look over across the aisle and see if someone is running out of some material or just about to finish with one step and will be ready for retooling shortly, and be in a position to do whatever is called for to keep the operation moving along smoothly."

Foreman Scheulen says group technology has promoted communication and cooperation among his 'team', which currently consists of 12 to 13 workers, including welders and mechanics. That number will increase dramatically, he says, as production of the drop tanks is stepped up progressively after the first deliveries next year. "Just check back with us then — I expect to have more than 50 people working on the program one year from now and I think the group design of the project will make it one of the most efficient in Grumman."

Firm orders

"Current firm orders called for in our contract with the Navy are for 360 units," Shull says.

Any additional F-14 sales after fiscal 1986 will mean another two tanks per plane for the Grumman fuel tank program," he adds. "We expect future orders to be healthy and the group technology system will undoubtedly give us a good edge in productivity."

Currently two test tanks are being constructed and will undergo conformancy checks to prove out welding techniques. Three operational tanks are also in various stages of assembly in Plant 3, with the first to be completed sometime in February for delivery to the Navy in early March 1984.

People involved in the project also report that the group technology concept has greatly improved overall working conditions and enhanced production coordination.

Less problems

Project foreman Donald Scheulen says that "while it is still early, I have no doubts that the concentration of the drop tank project work done under one roof will greatly improve productivity. The whole idea is quite good because we can control the entire project more efficiently. I can schedule tooling and material deliveries as needed and if something is not here when we need it I usually know why and how to get it here in a hurry. In other words, we can trouble-shoot easier with all the work and people right here — it definitely makes for less problems overall for everyone."

The logistics of using group technology in the drop tank project involved the sending of two of his top mechanics over to Plant 2 for welding training as well as having two spot welders from Plant 2 come over to the Plant 3 manufacturing center to help train his men on the new spot welding machines. "With all of us working as a team and the entire project right here, it makes for good rapport all around," Scheulen says.

Bill McCormick, the project's welding key-man says he is very pleased with the teamwork involved in the group technology system. "Communication is the key to the whole program," he says. "It simply has to be easier, with all of us working together in one place we can talk over problems, make suggestions, and keep things moving efficiently."

Communication the key

"Since all the work is being done right here, there is obviously less handling problems also. Before pieces would get banged around in transit all the time. We had to contend with the weather factors in transporting and storing pieces, too, while we waited for other plants to do some work before we could proceed — this way just makes more sense."

Pre-retirement planning seminars

Grummanites discover that it's never too

It's never too early to plan for your future. Remember how much planning went into the purchase of your dream house . . . your children's college education fund . . . your vacation home? Though it might be more than a decade away, it's never too early to plan for your retirement.

Start early

That's the theme of the company-sponsored pre-retirement planning seminars. "People usually come to these seminars with a relatively vague idea of what they will do with themselves financially and otherwise when they stop working. They believe that they have plenty of time to make their retirement plans later. Well they don't, and that is what we try to explain to them," says Fran Higgins, assistant to the Personnel Communications manager.

"Procrastinating, putting off making real concrete plans because people say they are too busy now or just don't want to think about such things is actually self-defeating," continues Higgins. "The fact of the matter is that planning effectively for life after retirement should be a major concern many years before an individual starts getting close to that sixty-five-year-old mark."

The pre-retirement seminars, which began in 1979 and have since grown both in scope and attendance, are designed specifically for Grumman employees who are 10 to 15 years away from retirement age.

The first session of the two part program concerns itself with the social and psychological aspects of retirement. Also included is information on those Grumman benefit plans pertaining to retirement, such as: pension; employee investment plan; and retiree health insurance.

At the second session experts on several topics, including financial planning, Social Security, taxes and legal matters, give presentations and answer participants' questions.

In between the two sessions, participants are requested and expected to do planning exercises at home with the help of two cassette tapes and a workbook provided by the company. This homework is necessary for several reasons, according to Bill Hughes, Personnel Communications Manager. "The Grumman benefit plans have many options and a lot of flexibilities. Each employee must choose those options which best suit his or her goals and needs.

"The planning exercises also assure more and better informed participation in the program as well as engaging both spouses in the planning experience," he comments.

'The discussions on the social and psychological impacts of retirement were a real eye-opener.'

Bob and Marge Murphy

'Most people tend to let time slip by, but this program stresses putting together a real plan and sticking to it . . .'

Harry and Jean Fuhrmann

Grumman employees are encouraged to attend the seminars with their spouses. "Obviously, people who have spent their working years together should be actively involved in planning what should be their 'golden years' together," continues Hughes.

Harry and Jean Fuhrmann agree. Harry a 58-year-old assistant to the chief of Production Operations, Plant 43, says he decided to attend the seminars "because the timing was right. My wife and I have been thinking about what we will do after I retire from Grumman and the seminar seemed like a good place to get some ideas and maybe some constructive assistance.

'Laying out a formal plan'

"The program really starts you thinking about the importance of laying out a formal plan," says Harry. "Most people tend to let the time slip by, but this program stresses putting together a real plan and sticking to it for the future."

Jean Fuhrmann enjoyed the seminar because "it stresses the idea of the whole family working together on planning the future. We had been planning somewhat before the seminar but it was really only on a preliminary basis. This brings the whole idea of retirement and what it means to the individual home, and gets you much more closely involved.

"Since going to the seminar my husband and I are now more seriously thinking about buying some land near where our children live in New Jersey. We both look forward to traveling — something we have begun to do more of since our children were married. The program also brought out our personal interests, some of which surprised us.

Taxes, legal info

"I especially liked the literature and tapes that were distributed to enable the attendees to go back and review some of the information presented at the seminar. Harry and I both felt that there was so much information involved, especially in the legal and tax areas, that another whole night could have been spent with the lawyer alone."

Regina McKenna, an associate administrator for A-6, EF-111, and EA6B projects in Plant 40 has been with Grumman for 28 years. "I was unaware that the seminars were being given specifically for people in my age bracket as I expect to have many years ahead of me here at my job before I am ready to retire.

"The seminar made me aware of a lot of things that I just didn't

early to plan ahead

know and how important it is to begin planning ahead. I can tell you, now I know how much homework I have to do to get going and get myself set.

"It is unfortunate that we tend to think that everything is automatic, but now I realize we have to do much planning on our own," continues Regina. "I value the fact that Grumman, through the seminar, is giving us adequate time to prepare ourselves."

Regina says she can "wholeheartedly recommend the seminar. We all think that we have more time to get ready, but actually it takes much longer than people realize.

"There was a message for me in each of the presentations. I think every individual can learn from this program. I know now that I will personally be more frugal and more conservative in many ways. In my earlier years, I prepared for a life in the workforce by concentrating on my education. Now I will begin preparing for the next step — my retirement."

Bob and Margaret Murphy have also been "stirred into action" by the seminar program.

"Time is marching on and I guess a lot of people just don't realize that there is a real need to be prepared," says Marge. "Since the meetings, we have discussed investing in a condominium in Florida — as an investment now and a retirement home later.

"What I really enjoyed the most was the first meeting. The discussions on the social and psychological impacts of retirement were real eye-openers. The talk on taxes and the Grumman investment program was also very informative," she adds.

Bob, a 32-year Grumman field administrator for Purchasing in Plant 30, says "it really makes you sit down and think. People have the wrong attitude when they think that they have the time to wait. You've got to plan ahead. I'll tell you, the explanation of the pension plan and tie-ins with health insurance and Social Security as well as the information on taxes are extremely helpful. I wouldn't hesitate to go to another program like this. I'm sure that there is still much more I could learn."

Bill Leonhardt, a flight test project engineer with Grumman for 30 years, also endorses the seminar program. "I have been thinking about retirement for some time now, and I had heard about the seminars and how good they were, so I was just waiting for my invitation. I was very impressed, as was my wife. The message, right from the beginning, is that you have to start seriously thinking and planning for your retirement — and you have to do it now.

"My wife and I have already been looking in areas like the Carolinas and Texas for a good place to live after retirement. Now we are more seriously trying to make a definite choice and some firm plans for the future."

'. . . now I know how much homework I have to do to get going and get myself set.'

Regina McKenna

'Going back to review the tapes as a reference helps involve the family with the overall planning.'

Bill and Virginia Leonhardt

Overall planning

"I found the tapes and literature they gave us to be very helpful. Going back and reviewing the tapes as a reference helps involve the family in the overall planning."

Virginia Leohardt notes that she "hadn't thought about retirement in any way until I went to the seminar. I really think it is a necessary program and the whole concept of the wife being an integral part of the planning process is important. The financial presentations especially explained for me a great deal that I certainly did not know enough about before.

"We have begun discussing more about what we really want to do and where we want to live after Bill retires. The seminar gave us the push we needed to really start serious thinking about our future plans."

Simply put

"Indeed," says Fran Higgins, "getting people to start thinking and planning seriously for their retirement is what the seminar program is all about. We try to make it easier for the people to see where they are now and where they want to be after they stop working. The idea is simply to plan ahead and we hope the seminars give people the impetus and the information they need to do just that."

The next series of pre-retirement planning seminars is tentatively scheduled for some time in April next year — "and we already have had more than 50 employees request invitations for that program," says Higgins.

Holiday news

ES offers new gift line

Is one of your friends or relatives having an engagement party? Or, do you just want to get Mom something nice for Christmas?

Grummanites shopping for something special need look no further than the ESO (Employee Services Office) Flight Shops in their plant. Among the many new items now available are brass candlesticks, wine sets, knives, cheese boards, and much more.

There's an added bonus — the giftware items are at prices about 20 percent below Fortunoff's, says Chet Baumgartner, Grumman's new director of Employee Services. Twenty-two of the 32 items stocked are under $10.

Baumgartner says the ESO stores will be selling candy during the Christmas season, but a number of items have been discontinued, among them Christmas-tree ornaments and stuffed toys. They just weren't moving fast enough, he says, and in fact often stayed on the shelves for years.

ESO stores still stock personal-care items, such as key rings, combs and the like, as well as men's, ladies', and children's clothing bearing the Grumman logo.

"We're basically selling convenience items," Baumgartner says. "We're trying to get away from being in competition with places outside the gate."

Gifts galore. *Stop by your local ESO and check out the new product line.*

Retooling for the future

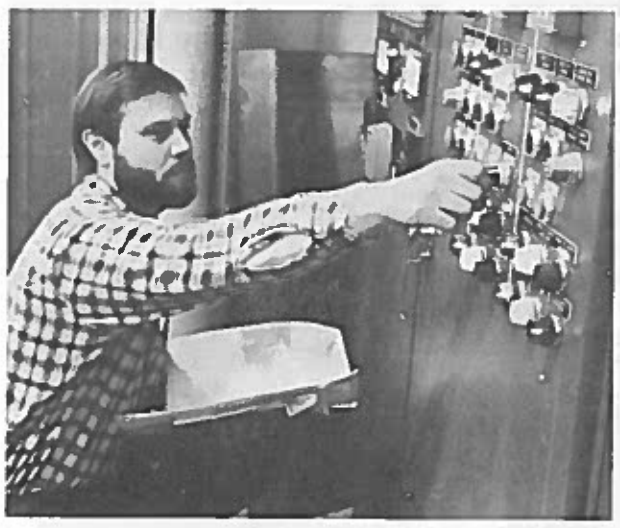
GAC's $150 million plant-modernization program

State-of-the-art "factories of the future" are taking shape today at Grumman Aerospace. And if all goes as planned, as many as 10 industrial robot stations will be in operation at various Grumman plants by 1988, in addition to a host of other high-tech manufacturing systems.

The new equipment is being installed under the aegis of Grumman's Modernization Program, an ambitious, $150 million project that will run through 1988. According to Frank Messina, vice president-Manufacturing, "modernization will reduce the amount of time it takes for Grumman to produce a finished aircraft, enabling the company to sell its products at a lower price, and enhancing its competitive position in the marketplace. Grumman will also be able to maintain an enhanced surge-response capability — the ability to meet a sharply increased demand for aircraft and associated systems in a national emergency."

Navy cooperation

The Grumman Modernization Program is partly a cooperative effort with the Navy — in concert with the Department of Defense's Industrial Modernization Incentives Program (IMIP). The Grumman funds are from a $300 million outlay, earmarked in 1981 by Grumman Corporation for capital improvements. The Navy provides support funding. During the just-completed Phase I of IMIP, the Navy contributed approximately $500,000 to the Grumman effort, while under the subsequent phases,



In control. *Gary Haber demonstrates the computer numerical controls that operate the two new heat-treat ovens in Plant 3.*

the Navy will contribute about $16 million.

The latter figure is for technology support and start-up costs, says Bob Myers, senior vice president, Resources. On November 9, the IMIP Memorandum of Agreement was signed by Myers and Capt. Peter DeMayo, NAVAIR director of Contracts.

Carl Micillo, program director for the Modernization Program, says it is a "win/win proprosition for both Grumman and the Navy.

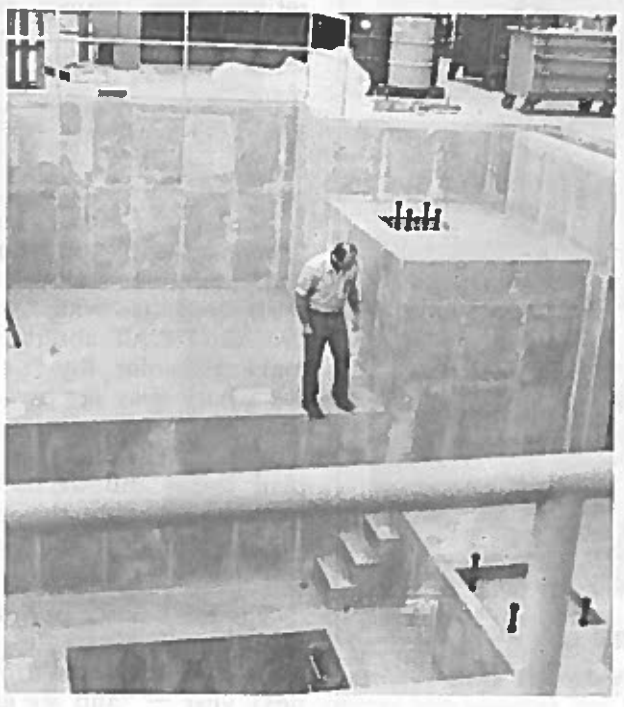
"A basic thrust of the effort is to reduce the cost of Navy aircraft, thus improving our competitive base in the coming years," he states. "The Navy provides some funding of the program. More importantly, we obtain a share of the cost-savings we achieve in our manufacturing operations."

Perfection. *Computer controls assist Richard Langdon in operating the Cyril–Bath V-21 Stretch Press, enabling high-quality output.*

By 1988, those cost savings will amount to approximately $50 million per year — the result of enhanced productivity brought about by the implementation of the latest manufacturing technologies.

Robot Two goes to work

During Phase I, the IMIP team studied the feasibility of 77 concepts to modernize Grumman's industrial areas. Those 77 were narrowed down to 25 projects, which will be implemented throughout Grumman's Bethpage, Calverton, Great River, Glen Arm (Md.), Milledgeville (Ga.), and Stuart (Fla.) facilities. Projects cover all areas of manufacturing, including systems, quality, and material management.



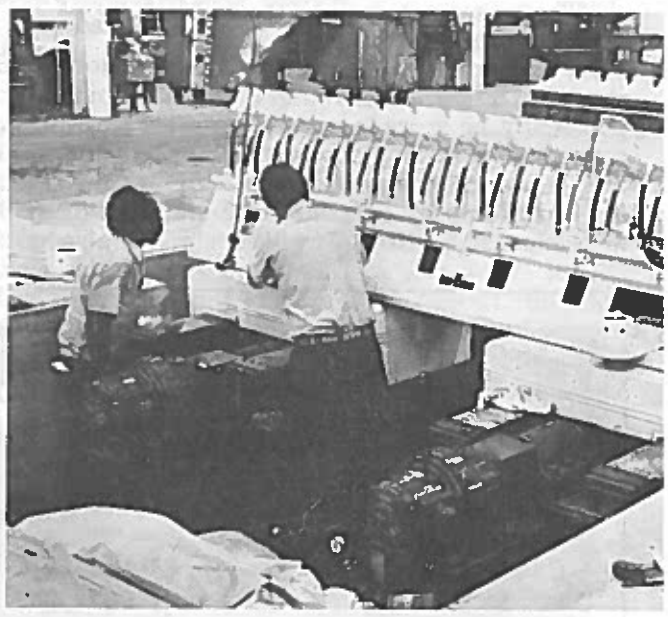
Down under. *This multilevel, 25-foot-deep hole was dug to accommodate the Cyril-Bath V-400 Stretch Press, which has a 400-ton capacity.*

Of the 25, 10 call for the installation of robots. Grumman's involvement in this area will be small compared to that of, for example, the automotive industry. That's because Grumman isn't a mass producer, but instead manufactures diverse products at comparatively low rates.

Although IMIP will eventually involve all of Grumman's major manufacturing plants, the initial changes can be seen right now by visiting Plant 3 in Bethpage. Plant 3 will consolidate detail-parts manufacturing and prototype machining under one roof. Ultimately, its modernization will represent about one-third the total capital expenditure for manufacturing.

Plant 3 recently hosted a milestone: the installation of the company's first shop-floor robot. It's a twin of the robot dubbed "Alfie" that was tested earlier in Plant 12. Alfie's twin will go to work next month, and will perform after-form routing, trim, and drill procedures.

The robot is unique among industrial robots in that it travels on a rail, stopping and performing tasks at four separate workstations. Thus, it can complete four different jobs at once.



Just like new. *Cyril-Bath employees work on the refurbished Maust Stretch-Press.*

Production personnel will supervise its operation from inside a glassed-in room housing computers and numerous other electronic devices. Loading unfinished materials and unloading finished parts will be a less tedious and more safe and clean operation.

Other systems pass go

Much of the other new equipment in Plant 3 is already up and working. Two new heat-treat furnaces, one for stress relief and another for aging, are in operation, while nearby, ground will be broken in February for a 35,000-square-foot heat-treat facility. The new addition will incorporate the latest advances in heat-treat technology.

Larry Farrelly, manager of Plant 3, says: "The new equipment was sorely needed. The old machines were over 25 years old, and suffered quite a few breakdowns."

ets under way

Near the two furnaces stands a new drop-quench furnace, which is used in the aluminum-forming process. It will enable the company to better keep pace with the state-of-the-art.

"With the requirements we have today, the old equipment had to perform in ways it wasn't designed to do — for example, submerging formed aluminum within six seconds," Farrelly says. "The new equipment handles this requirement easily."

Each item of new machinery will be operated by computer numerical control (CNC). Under CNC, an operator of one of Plant 3's new stretch presses, for example, can shape detail parts of a more consistent high quality than was possible using the old, manual stretch/wrap machines.

Once the computer is programmed, by forming the first part, the operator punches in a part number, and gets a listing on a VDT screen of the steps required to make it. Manual methods required the operator to rely on his own know-how, resulting in a greater degree of variance in finished parts.

Eventually, there will be five presses of varying sizes and capacities. Right now, there is a four-level, 25-foot excavation in the Plant 3 shop floor to accommodate the newest press, which has a 400-ton capability.

Manufacturing marvel. *At top, Erick LeLay and Mike Redding put a few finishing touches on Plant 3's new industrial robot. Above is the just-arrived Trumpf punch-nibbler.*

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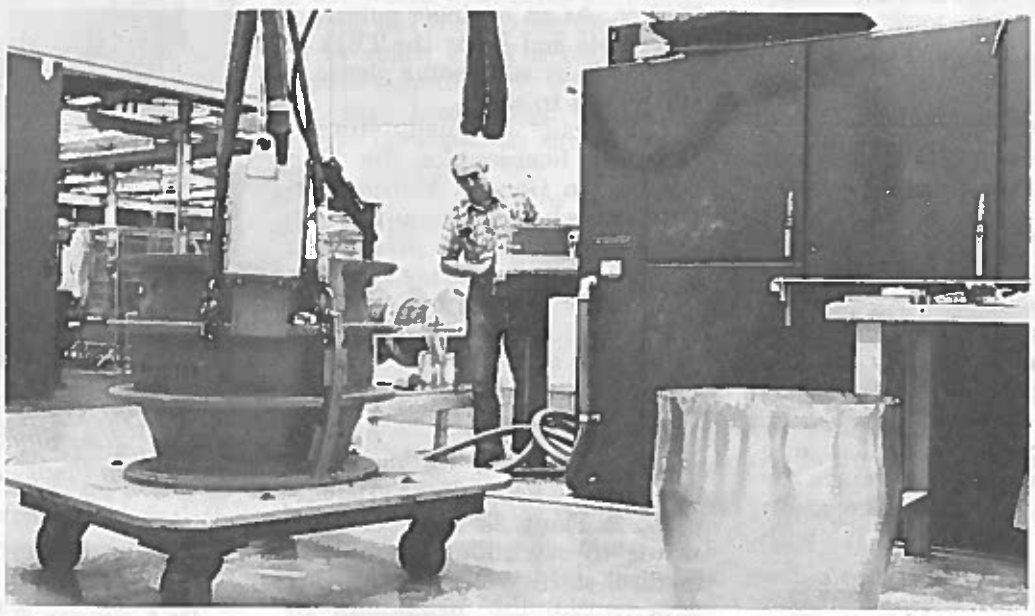


Good form. *Bill Knight demonstrates the six-month-old Magneform unit, which makes a host of cylindrical parts.*

Among the other new machines now in operation, or soon to be, is the Magneform, used to make cylindrical parts for the F-14 drop tank, aircraft engine nacelles, and other programs. It's been in use for about six months.

The shiny new Trumpf punch-nibbler will be used for steel and titanium cutting. Until now, most of this work has been performed manually. The shop crew is presently making samples to test the punch-nibbler's CNC program. One nice feature is that it can be programmed to make parts out of material that might otherwise be discarded as scrap.

In 1984, five new CNC power brakes will go to work. These units form the E-2C and F-14 wing stringers, as well as other parts for all Grumman aircraft.

Construction is under way on a new steel and titanium welding center. The aluminum-welding operation will remain in Plant 2.

Additionally, a new alodine facility will be set up adjacent to the present chromic-acid anodize facility. It will also have a similar configuration, in which an operator monitors processes on a TV screen while inside an air-conditioned cab.

"It's a big challenge to modernize while maintaining our day-to-day operations," comments Bob Milani, industrial engineering manager for Modernization in Bethpage.

Farrelly agrees. "There's no way we can let modernization interfere with a product delivery," he says.

Behind the scenes

Modernization doesn't end with the installation of new equipment. There's a lot of planning and technology development behind the scenes, and software programming as well.

"All elements of the manufacturing process must be considered," states John Huber, IMIP program manager. "You want to get a smooth work flow, from input to output."

To help achieve this, eventually, each CNC machine will feed information to a central database. Likewise, each machine will be able to obtain information from Grumman's computer-aided design and manufacturing (CAD/CAM) system.

Next on the agenda are modernizations in Plants 1, 2, and 4 in Bethpage, where sub- and major assembly operations will be consolidated. This use of "group technology" — the consolidation of like operations in one area — will be a key factor in increasing productivity. Plants will function in a manner more akin to mass production, speeding the process.

Planned for Plant 77 in Stuart are the automation of E-2/C-2 wing outer panel assemblies and control surfaces. Other efforts include prepreg automation in Milledgeville, modern final paint/strip facilities at Calverton, and more high-technology equipment for electrical fabrication and assembly at Great River. In addition, automated storage and retrieval systems will be developed and implemented in the Bethpage complex, similar to the one now operational at Great River.

Micillo says there is a great need for modernization in these times of government cost-cutting.

"The old way of doing business with the Department of Defense didn't provide industry with enough of an incentive to invest in productivity measures, since lower costs would only be passed on to the customer in the form of a lower price tag," he reflects. "With IMIP, we have the basic framework for the Navy and Grumman to share risks, costs, and the savings that result."

people

The right stuff

Joseph Voss travelled up to Bear Lake, about 130 miles from Los Angeles, for a weekend barbeque. The Grumman Aerospace West Coast quality engineer returned to work the following Monday a hero. Here's Joseph's story:

"While standing on the dock, I observed a red light speeding along the lake surface. It was about 8:15 p.m. with partial light from a quarter moon. After observing the light for approximately one mile, it became apparent that it was an airplane flying close to the water surface.

"I called out to other people near the fire pit to observe the plane crashing into the lake. The

Joseph Voss

crash occurred about one mile from our viewpoint. Four of us, including my son, got into a boat and raced across the lake to the red light.

"As we raced to the red light, we could see the plane slowly sinking. Before reaching the plane, the red light sank. We probed our way along with a spotlight until we heard yells for help. We spotted two people on the surface. They called out that other people were still in the airplane.

"Air bubbles were breaking the water surface. I dove into the middle of the bubbles to reach the third person trying to leave the plane. I made another dive to reach the plane, but the cold, dark and deep prevented me from reaching the fourth person." The plane had sunk 55 feet to the lake bottom.

Personal touch. *Susan Honesty designed the herb drying room in the recently opened Woodlands mansion — a designer's showcase.*

The Grumman touch

Woodlands, the former estate of Alisa Mellon Bruce, recently opened in Woodbury, L.I., as a designers' show house. Susan Honesty of Facilities Engineering, Plant 30, designed the "Herb Drying Room."

"This herb drying room was designed for the lady of the house whose hobby is drying herbs and flowers," says Susan. "Despite the area's small size, a design statement was made by playing up the room's few assets and then punching it with color."

The Woodlands showcase benefits the Town of Oyster Bay Arts Council and is open 10:30 a.m. to 4 p.m., Monday through Friday, and noon to 5 p.m., Saturday and Sunday.

Visitors can see 28 redesigned rooms in the 35-room mansion. Don't forget to catch Susan's design work; it's in Room 10.

An old friend

"Seeing that Avenger again sure brought back some good old memories of my early days with Grumman," says Art Sullivan, a 61-year-old job shopper currently working in Quality Control/EF-111 at Calverton. "I worked for Lockheed at Kennedy Airport until I retired, but I got tired of twiddling my thumbs, so here I am again," he says.

It seems that Art saw a TBM torpedo bomber at Calverton recently. The Avenger was undergoing flight certification; it had been part of the U.S.S. Intrepid museum exhibit in New York City.

The sight of the WWII vintage bomber reminded him of his early days at Grumman. Prior to WWII, Art worked in Plant 2 on the final assembly of the very first Grumman TBF. "I worked on the Ducks first," recalls Art. "When we started making the TBFs I moved over to the wing shop and final assembly over in Plant 2. Back then, the plant didn't even have its jigs or anything set up. It was just a big shell.

"My foreman, Al Hesselbar, had the whole crew pushing to get the plane finished. When we were done — well that was one of the best planes in the world at the time. I went into the Army Air Corps after Pearl Harbor. As an engineer gunner, I flew B24s and I saw the TBFs in action. They were some planes — still a sight to see."

Grumman eventually turned over the licenses for the TBF bomber to General Motors Corporation when the company became devoted to the production of F6F Hellcats during the war.

"When I saw that Avenger flying again, it made me feel proud and young again," states Art.

'Stat' thinking

Joe Siniscalchi of the E-2C Corporate Estimating Department in Plant 25 has some nice words to say about Grumman's medical staff. While at work, Joe experienced the beginnings of a heart attack, and the quick diagnosis of Lillian Offen, the plant's nurse, helped save his life.

Joe recalls feeling slightly ill for a few days before the fateful event, but he shrugged it off as a bad case of indigestion. In fact, that's why he stopped by Lillian's office — he'd run out of Pepto Bismol tablets and was checking to see if she had any.

Lillian, however, was more than a little curious about the symptoms Joe complained of — tightness in his throat and sore gums. When she learned from his medical records that he had suffered a heart attack 10 years ago, Lillian decided to take no chances. Despite his protests that "it was nothing," she arranged to have him taken by an ESO driver to Nassau Hospital in Mineola. She also contacted Joe's doctor, who was at the hospital when he arrived.

"I really gave her a hard time," Joe recalls. "I never would've gone to see a doctor about it on my own."

Later the same day, while he was at the hospital, he went into cardiac arrest. Fortunately, the medical staff was able to revive him quickly. They told Joe he was lucky to have been where he was when it happened. He ended up staying in the hospital for about three weeks, and stayed home from work for three months.

Now, Joe is glad that Lillian insisted he get to the hospital without delay. Lillian's preliminary diagnosis was right on target.

Check-up. *Nurse Lillian Offen checks Joe Siniscalchi's blood pressure in Plant 25.*

Take another bow

He's already got all four walls of his office covered with plaques, certificates, and trophies, and now Chuck Sewell has to make room for still another.

Chuck, chief test pilot and deputy director of Flight Test, recently received the Ray Tehnhoff Award at the Society of Experimental Test Pilots' annual symposium. The award is given to the author of the best technical paper submitted at the symposium, and Chuck's was chosen over about 40 other entrants.

The subject of the paper: the X-29 Forward-Swept Wing. Chuck is pleased to have received the award, and says he's already gotten quite a few requests from Air Force people for copies of the paper.

what do you think?

This year, the National Aeronautics and Space Administration (NASA) celebrates its silver anniversary. NASA has achieved many remarkable accomplishments in its first 25 years. We asked Grummanites in Plant 35 what achievements they would like NASA to achieve in its next 25 years. What do you think?

Ernestine DeFanis

I think what would be nice is if by going out into space, they could make a discovery that would help the medical profession. And I'm sure there might be something discovered in the food area — they're going to have to prepare food differently to go out into space, and I think that would be an advantage, being that the world is so populated. Space flights would be great, but you wouldn't get me on one! I'm sure the younger generation would take them. As far as people living out in space, it seems so out of reach now — it's sort of fantastic when you think about it. I'm not saying it can't happen — it probably will happen, in time. We've already seen so many changes in our lifetimes.

Annie Fowler

There are so many other things that are much more important than the space program. The priorities should be kept in their right perspectives. Sometimes I think there's too much emphasis on things that really aren't beneficial to the people of this country. That's my opinion. Don't get me wrong — I feel the space program is very important. We have made accomplishments, but there are so many other needs in America, such as hunger, and jobs, and things of that nature. We here at Grumman benefit from the space program, but not everyone works for Grumman or for another company that would benefit. I'm speaking of the majority of people of the United States.

John Guldner

That's quite a long-haul question! One thing for sure, we should keep our national defense up to par, against the Russians. We should at least be countering their military moves in space. There's also a lot that should be done in the areas of communication and energy. Communication can be improved through all parts of the world with some new antennas and networks being planned. As far as space travel is concerned, I wouldn't predict any developments for the foreseeable future for people to travel to other planets, but possibly for processing materials. That seems to be the most promising area.

Bob Romano

More than anything, they should get the laser platform up there so we can be protected a little more against the nuclear threat of the Russians. That would make it more of a standoff, where the Russians wouldn't be as willing to go ahead and be so tough, going into countries throughout the world and doing whatever they feel like. It'll make them a little more scared. I'm pro-defense; I want the country to be protected, because the way things are now, we're very vulnerable. We're not like we were years ago. But, hopefully, President Reagan will change all that.

Peter Olson

I'd like to see NASA keep advancing with space radar stations — try to build it up sort of the way it was portrayed in the James Bond movie "Moonraker." The technology would move wars out into space, rather than having them here on Earth. We should keep on advancing that technology so we have the defensive edge. I don't see actual colonies being started out in space or on other planets — only in the sense that they would exist for defensive measures. I do predict commercial space flights, and I would be interested in taking one, but it would be more of a tourist-type thing. I really don't think people will be that enthusiastic about going up there to live.

Lee Norberg

Space exploration, in 25 years, has had success, but it should be more geared toward commercial development in space for future applications of technology. This is in addition to developing better means of transportation as well as living environments. A space colony is a possibility for the near future, as well as regular commercial transportation. I would definitely take a ride on such a flight.

Susan Belasco

I never thought about it much. I guess they should continue what they're working on, including developing living quarters for people in space. Hopefully, what they accomplish will have a positive effect on the quality of life on Earth. This would be in the same manner as what they did in the space program previously — making discoveries that ultimately helped people in hospitals and the handicapped. I hope they can do more of that. Will people be living up there in the near future? Definitely. Perhaps not in our lifetimes, but in future generations, we'll need it. You can see Earth changing now, with less land to live on and famines.

Jim Bollinger

I read an article the other day about colonization of the moon. That would be a great thing to explore. I could see much more space exploration taking place, but the primary effort should be on the moon — colonization plus space laboratories. The article I read was primarily concerned with the moon, but it did point out that the space station would be built first, and then moon colonies. These would be for scientists, rather than a community per se. So I'd say the space station is definitely in the foreseeable future.

calendar

Aikido Club: (Martial Arts) every Wed., 5 p.m., Recreation bldg. Beginners class. Guests welcome. M. Brooks, Ext. 115-6171/H. Brondo, Ext. 2719

Alcoholics Anonymous: every Mon., 4:30 p.m., Pl. 15, conference room C, closed meetings; Personnel Relations, Ext. 3521, Great River meetings: every Wednesday, 4-5 p.m. T. Connolly, Ext. 3521, Calverton: Chemical Dependency Discussion Group, every Mon., 4-5 p.m., Guard Hdq.; open meeting. Personnel, 369-6759, C. Robb. Ext. 117-7038

Amateur Radio Club: every 3rd Wednesday of the month. Plant 5 conference room BD-1, 5 p.m. B. Wengler, Ext. 4187

Chess Club: every Fri., Recreation bldg., 5 to 11 p.m. Beginner-Expert, guests welcome. K. Marley, Ext. 4901/N. Corso, Ext. 9600

Coin Club: (Calverton) every Fri., noon lunch, Pl. 6, A-6 Action Center conference room. Grumman employees welcome. N. Evangelides, Ext. 117-7242

Computer Club: 1st and 3rd Mondays of every month, Recreation bldg., 5 p.m. Computer discussion and demonstration/ beginner to advanced programming. Guests welcome. J. Hayne, Ext. 4945/P. Frumkin, Ext. 5134

Dance Club: every Wed., 5-8 p.m., Recreation bldg. Guests welcome. S. Koppell, Ext. 115-3800

Duplicate Bridge Club: every Thursday, Recreation bldg., 6 p.m. Guests welcome. P. Gill, Ext. 115-8414

Equestrian Club: every weeknight, Knoll Farm, Brentwood, 6 p.m. Grumman employees and immediate family only. J. Eisenhower, 115-6211

Fencing Club: every Wed., 4:30-6:30 p.m., Recreation bldg. Free instructions, guests welcome. J. Hayne, Ext. 4945/P. Chaldaris, Ext. 3486

Folk Dancer's Club: (Calverton) every Thurs., 2nd floor, Pl. 6, lunchtime, Grumman employees only. J. Hamelman, Ext. 117-6835

Klown Klub: every second Tuesday of each month, Recreation bldg., 4:15 p.m. Guests welcome. M. Deyns, Ext. 7564

Karate Club: every Tues. and Thurs., Recreation bldg., beginners 4:30 to 5:30 p.m., advanced 5:30 to 7:00 p.m., black belt instructors, physical and mental development; guests welcome. T. Ortiz, Ext. 4555

Model Railroad Society: every Wed., 7 p.m., Recreation bldg. Regular meeting. Guests welcome. R. Muntz, Ext. 6865

Magic Club: last Wed., of every month, The Magic Shop, Mid-Island Plaza, Hicksville, 4:45 p.m. Guests welcome. G. Albright, Ext. 5782

Roller Skating Club: every Thurs., Levittown Skating Rink, Lessons 6:30 to 7:30 p.m. Guests welcome. H. Denen, Ext. 2291

Stamp Club: First three Wed. of every month; 5-6 p.m., Pl. 35 cafeteria; trading sessions and discussions. S. Hoops, Ext. 3926

(Continued on page 11)

Personals

On behalf of my family and myself, I would like to express my deep appreciation to all my friends and co-workers at Grumman for their kindness and sympathy during the recent loss of my father. Norman G. Meier

My family and I wish to thank everyone at Grumman for their kindness and sympathy during the recent loss of my mother Anna. The flowers were lovely and admired by all. Richard Hepp and Family

My family and I extend our sincere thanks to my friends and associates at Grumman for their kindness and thoughtful expressions of sympathy during the recent loss of my brother. Roger Kaplan and Family

service milestones

40

George Bereznak, Assy. (2)
John E. Flynn, Cent. Stor. & Ret. (2)
Alexander D. Murphy, Final Assy. Struct. (4)
Harry R. Milne, Transportation (7)
Ricard W. Newton, Struct. Des. (40)

35

Thomas E. Ryan, Funct. & Proj. Admin. (1)
Gunnar Enstad, Proto. (2)
John B. Lennon, Prod. Rel. & Anal. (2)
Henry L. Fazzari, Jigs & Fix. (2)
Robert F. Dunlop, Mach. Oper. Parts Ctl. (3)
James B. Middleton Jr., Prod. Cntl.-Parts Cont. (4)
John G. Musante Jr., EF-111 Struct. MOD-DA (6)
Gerard M. Maurer, Sub. Cont. Comm. Prod. MS (9)
Arthur E. Pope, Maint. Rearrang'mt. (12)
Donald J. Lamorte, Wt. Optim & Tech Dev. (35)
Arthur B. Emmons, Elec. Sub. Assy. (77)
Dwight G. Hutchinson, Air Frame Sys. (267)

30

John W. Laundis, Assy. Meth. (1)
John H. Gross, ILS Tech. Direct. (1)
Charles A. Holzler Jr., Q.C. Lab. (3)
Edward M. Thomas, Struct. Des. (25)
Frederick W. Shepheard, Aero. Test (5)
Barbara A. Seaman, Corp. Cont. (5)
William R. Schooley, Struct. Des. (9)
Frederick D. Larrick, Plastic/Plaster Tool. (11)

25

Joseph V. Licari, Tech. Mgmt. Sys. (1)
Thomas P. Ivory, Mfg. Plann. Mgmt. & Staff (2)
Joseph P. Milillo, Ind. Eng. (3)
Irene E. Gaden, Food Serv. (3)
Peter Sikoryak, ILS Train. Sys. Eng. (4)
Stephen R. Juengst, Market Plann. & Research (5)
Frank A. Gatz, Wing Inner Panl. & Combo. (6)
George M. Lewis, Corp. Instr. Ops. & Proj's. (7)
John D. Conover, Pwr. Plt. Des. (9)
Norbert C. Strohsnitter, ILS Mech. Equip. Eng. (40)
Vera M. Senyk, Performance (4)
Frederick F. Zapf, Sta. Cont. Equip. (40)
Edward Ulrich, Aircraft Progs. (7)

20

Roy D. Ambresait, Join & Med. Mod. Install. (1)
Robert N. Kerschbaum, Assy. Meth. (1)
Frank S. DeVito, Sys. Cont./Perform Anl. (1)
John E. Johnson, Prog. Qual. Mgmt. (1)
Edward H. Drew, Small Parts Fab. (2)
Richard A. Kuhn, Assy. (2)
Joseph S. Newman, Weld. Group (2)
Chester W. Maibach, Templates (2)
Robert W. Tiedemann, Tool Cont. (2)
Aguedo Matos, Tool Maint. & Repair (2)
Willie H. Watlington, Trans. Ops. (2)
Michael A. Vecchia, BPA Q.C. Mgmt. & Admin. (2)
Martin Accardi, Tool Insp. (2)
William Lewis, Ctr. Sect. Final (3)
Merle L. Cranmer, Maint. Rearrangement (3)
Thomas E. Frabizio, Main. Wast Dispos. & Ground (3)
Edward Whitehead, Model Shop (5)
William T. Hynes, Mgmt. & Staff (5)
Bertrand H. Thompson III, Aero. Test (5)
Stanley G. Kalemaris Jr., Adv. Aircraft Sys. (5)
Edward A. Wysocki, Financial Oper. (5)
Fred Robinson, Financial Oper. (5)
Robert J. Baum, Prop & Sect. Progs. (5)
Stanley M. Serota, Corp. Sys. (5)
Walter L. Paul, Tech. Ops. & Mgmt.-Other Plts. (5)
Richard E. Romaneck, Corp. Inst. Sys. (5)
Clark J. Welch, Prog. Cont. (5)
Robert J. Hammond, Bus. Mgmt. & Anal. (5)
William H. Carpenter, EF-111 DITMCO-DA (6)
John R. Start, Support (6)
John W. Baumann, Stockrooms (6)
William M. Conlon, FTT Sys. (7)
Sidney Trink, Adv. Mat'l. & Proc. Dev. (12)
Kenneth L. Arnold, Meas. Stds. Lab. (12)
Ashley A. Fernandez, Elec. Test (14)
Jonas R. Hakimi, Radar (14)
Frank B. Olson, Soft. Supt. (14)
William M. Remily, ILS Tech. Writing (15)
George M. Castrataro, ILS Tech. Illus. (15)
Wallace C. Gray, B/P Whse. (17)
Benjamin J. Spinella, Elec.-Mech. Lines (25)
Rudolph Mahler, Elec.-Mech. Lines (25)
George F. Haggerty, Prog. Proc. Hydrofoil (25)
Arthur Leach, Admin. Serv. Mgmt. (28)
Rudolf Frey, Inv. Plan. & Anal. (30)
Ronald Graziose, Gen. Sub. Cont. (30)
John J. Zutlas, Cont. Rev. (30)

J. Licari

J. Milillo

S. Juengst

F. Gatz

G. Lewis

J. Conover

N. Strohsnitter

V. Senyk

Edward R. Vlaun, Eng. Admin. Oper. (35)
Eugene T. Cooper, Dept. Ops. Mgmt. & Staff (35)
Josephine Mule, ILS Sec. Serv. (40)
William H. Dunmyer, ILS Dig. TPS Eng. (40)
James A. Connor, ILS Equip. Des. Eng. (40)
Edmund Gorczycki, Sys. Cost/Perform. Anal. (40)
John F. Karasz, Reliability (40)
Erick J. Koch, Digital Technology (40)
Donald A. Schultz, Prod. Prog's. (40)
Gordon C. Shires, Qual. Eng. (40)
John S. Scannello, Prog. Qual. Mgmt. (40)
Paul B. Samuels Jr., Prod. Cont. (43)
Nicholas R. Sudano, Requmt's. Plan. (43)
Roy A. Goddard, Elec. Eng. (43)
Thomas Marino, Insp. Elec. (43)
Peter L. Brown, Avion. Purch. (44)
Francis W. Gaughran, Qual. Cont'l. (77)
Richard F. Lauria, Mfg. Est./Budget/Ind. Eng. (77)
Robert Heggie, Finance & P.C.&B. (77)
Thomas G. Pelham, Flt. Test (88)
Joseph Berka, Prod. (88)
Joseph Anselmo, Qual. Cont. (88)
Samuel Kreisberger, ILS Des. Eng. Mgmt. (106)
Joseph J. Sredniawski, Eng. Cont. Des. (272)
Charles A. Morgan, West Coast Office (287)
Daniel B. Sellers, Fld. Ops. Logis. (461)

15

George B. Mah, Steel Parts Assy. (2)
Suzanne M. Gerlich, Mfg. Mgmt. Staff (2)
Charles H. Buxton Jr., Bus. Mgmt. Anal. (5)
Sidney Gold, EF-111 Struct. Mod-DA (6)
Rose P. Strauss, Sec. Serv. (7)
Howard M. Flicker, Software Appl. (14)
Mary L. Mauceri, Repro. Serv. (15)
Janet P. Cassford, Prog. Cont. (25)

●

Tuesday, December 6: 25-year luncheon at Colonie Hill

F. Zapf

E. Ulrich

Alonzo B. Richardson, Opp. Dev. Staff (28)
Marjorie V. Calsetta, Subsys. (30)
Gilbert Reichel, Comp. Aided Struct. Anal. (35)
Marilyn Bunzel, Sec. Serv. (35)
Antoinette C. SantaMaria, Prog. Mgmt. EA-6B (40)
James H. Bobbitt, Mfg. Est./Bud./Ind. Eng. (77)
Sandra L. Taylor, Site Mgmt.-Other Plts. (279)

More personals

The Smith Family deeply appreciates all the thoughtfulness of my fellow workers and the Grumman Corporation in our time of grief. Edgar Smith

My children and I wish to express our deepest appreciation to all at Grumman for their expressions of sympathy, understanding, and kindness during my husband's long illness and subsequent death. We have been and always will be proud to be a "Grumman Family." Patricia Farley

On behalf of my family, I would like to thank all my Grumman friends and co-workers for their kindness and expression of sympathy during the recent loss of my wife, Theresa. Leo Jasinski

My family and I wish to thank all our Grumman friends for their sincere expression of sympathy during the recent loss of my brother. Ken Hubbard

On behalf of our family, we wish to thank all our Grumman friends for their generous gifts and expressions of sympathy during the recent loss of our father. Brian, Matthew and Maureen Mannix

I would like to take this opportunity to thank all our friends at Grumman and the Kiwanis Club for their help and prayers while our son was missing. God bless all of you. Roger L. Copenhaver & Family

They're tops in tennis crowd

Tennis champions of 1983. *No, Jack Bierwirth is not presenting an award to someone. This time out, it's his turn to receive a trophy. Jack won the "A" doubles championship with Gus Spyridon. Other 1983 winners are: (L to R) Frank Prisco, Stan Feinberg, Spyridon, Jean Stewart, Jean Hilsby, Dick Kline, Pat Ogilvie, John White and John Schrittweiser.*

The winners of the 1983 Grumman Tennis Classic recently received their trophies. Among the winners were:

Women's singles: Jean Stewart (four time winner) defeated Jean Hilsby. *Women's doubles:* Jean Hilsby and Pat Ogilvie successfully defended their title by beating Annette Frisch and Janet Schuman.

Men's "A" singles: Stan Feinberg defeated Anthony Bartilucci. *Men's "A" doubles:* Gus Spyridon and Jack Bierwirth combined forces to beat Larry Bird and Stan Feinberg.

Men's "B" singles: Frank Prisco beat Richard Taylor. *Men's "B" doubles:* John White and John Schrittweiser defeated Steve Nyland and Rich Hom.

Mixed doubles: Dick and Molly Kline beat Craig and Betty Langwost.

The annual Calverton Operations tennis tournament winners are: (top photo, L to R) Larry Horowitz, "A" division-singles; Tom Rozzi, manager of Personnel and Administrative Services at Calverton Ops; Eileen Pfaff, women's division-singles; and Tim Chatterton, "B" division-singles.

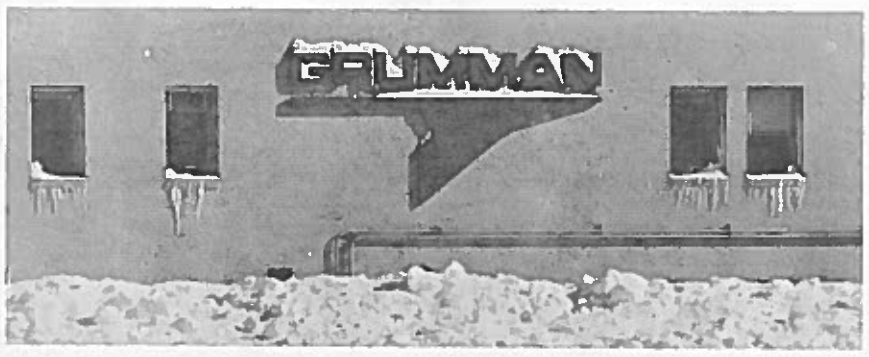
Winners in the doubles competition are: (bottom photo, L to R) Maggie Drower and Ed Clark, mixed doubles; Eileen Pfaff, women's doubles; Bob Saulnier, "A" division; Howie Dietz, "B" division. Not available for photo were: Debbie Bonilla, women's doubles; Gary Mauch, "A" division; and Frank DeQuarto Jr., "B" division.

Bad weather watch

A major snowstorm is blanketing Long Island. Before you start shovelling the driveway, tune in to one of the following radio stations to find out if Grumman plants are closed.

Station	Dial	Station	Dial
WGSM	740	WHN	1050
WHLI	1100	WBAB	102.3 FM
WGBB	1240	WBLI	106 FM

The following telephone numbers may also be called: dial (516) 349-9400 for Bethpage, Melville, and Great River; (516) 369-2266 for Calverton. These recorded phone messages go on line at 5 a.m.



Carpools

Hauppauge - Melville Complex; vicinity Old Willets Path & Veterans Highway, 7:48 a.m. to 4:18 p.m. R. Bracco, Ext. 3306

Selden to Bethpage (HDQ. Bldg.): 7 a.m. to 3:30 p.m. (hours will vary), S. Formosa, Ext. 9851/7244

Stony Brook/Smithtown to Plant 5: Rider needed to join existing car pool, 7:30 a.m. to 4:30 p.m., T. Dalton, Ext. 1825 or 979-8337

Kew Gardens, Grand Central Pkwy. Vicinity to Bethpage: 7:30 a.m. to 4:30 p.m., K. Browne, Ext. 0877

calendar

Table Tennis: every Thurs., Pl. 24, 5 p.m. and every Fri., Recreation bldg., 5 p.m., also every lunchtime. Beginners and guests welcome. B. Fabricant, Ext. 9307

Tap Dancing Club: every Mon., Recreation bldg., Beginners; 4:30 to 5:30, Intermediate; 5:30-6:30 p.m. Guests welcome. P. Tropea, Ext. 2260

ASHRAE: Tues., Dec. 13, SUNY, Farmingdale at 6: p.m. Year end holiday meeting, guests welcome. A. Rubenstein, 391-5423

More personals

On behalf of my family and myself, I would like to thank all of my friends at Grumman for their kindness and generosity during the loss of my father. Edward Mulcahy and Family

On behalf of my family, I wish to thank all my friends and associates at Grumman for their kindness and expressions of sympathy during the loss of my father. Charles Dragowitz and Family

Oops

One of the cover photos featured in the October 28th edition of Plane News was "flopped" as they say in the business. The carrier picture was printed backwards.

Hagen's dahlia, Gabriel's peach picked top of the crop at fall show

To many Grummanites, the Garden Forum's Fall Show is the best of the Forum's exhibits. It gives gardeners a chance to show off their expertise in growing both prize-winning flowers and produce.

Karl Hagen won the best-of-show award for his dahlia. Mike Gabriel won best-of-show prize for his Freestone peach.

More winners

Other Grummanites who received awards were (in order of finish — 1st, 2nd, 3rd, honorable mention):

Dahlias (single stem) — Karl Hagan, Frank Sadowski, Amy Blackwell, Judy Cote.

Seasonal (single stem) — Pete Mirabella, Dot Kappenberg, Blackwell, Sadowski; Spec. — Betty McLean, Chuck Belensi, John McGuckin.

Novice (single stem) — McGuckin, Ellen Smith, Lillian Gorlitz, Pam Sechrengost.

Seasonal Collection — Blackwell, Hagan, Kappenberg, Sechrengost; Spec. — Dave Kleiman, Sadowski, Smith.

Arrangements — McLean, Hagan, Cathy Struble, Georgina Nurnberger; Spec. — Ed Vasta.

Vegetables — Kleiman, Diane Crower, Sadowski, McLean; Spec. — Ben Hurley, Mike Gabriel, Bill Pietruszewicz, Suey Jue, Sechrengost, Peg Hanak, Blackwell, John Johnson, Arnold London.

Fruits — Gabriel, Jue, Helen Chlanda, Charles Chlanda.

Houseplants — Jim Murray, Blackwell, Lillian Fink, Ellen Smith; Spec. — Lynn Rocca.

Novice Houseplants — Barbara Lamberson, Lillian Gorlitz, Ed Albert, Kappenberg; Spec.. — Cecelia Eagleston.

Houseplants (hanging baskets) — Vasta, Sal Palazola, Kappenberg, Pietruszewicz; Spec. — Blackwell.

"Harvest Basket" — Blackwell, H. Chandla, C. Chandla, Kleiman.

Holiday Arrangements — Struble, Blackwell, Kappenberg, McLean.

Entry Prizes — Arnold London, Lee Costa, June Cashman, Theresa Donlon.

Dazzling dahlia. *Karl Hagen won best-of-show award for his dahlia, at the Garden Forum's Fall Show.*

Perfect peach. *Dan Huebner senior vice president-Marketing and Advanced Technology Development, presents top prize to Mike Gabriel for his award-winning Freestone peach.*

Tops on the bocce courts. *Winners of the 1983 Calverton bocce tournament were (L to R) Rudy Novissimo Sr., Manny Mauricio, Jerry Bernie, Lois Trent (Captain), Frank DeQuarto, Jim Barrie and Lenny Trifaro.*

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